

U.S. Patent Appl. No.: 09/935,757 Möckel et al.

## **REMARKS**

### **Preliminary Remarks**

Reconsideration and allowance of the present application based on the following remarks are respectfully requested. Claims 9, 12, 18, 21, 22, and 24-28 are allowed. Claims 15, 16, 23, 29, and 30 remain at issue. This response is timely filed. Should the Patent Office determine that additional fees are required for consideration of this response, permission is hereby granted to charge such fees to Deposit Account No. 033975.

In paragraph 7 of the official action, the examiner objected to claim 23 as being a substantial duplicate of claim 12. Solely to expedite prosecution, and without prejudice to seeking broader or similar claims in a continuing application, the applicants have canceled claim 23 thus making the objection moot. Accordingly, in view of the foregoing amendment, the applicants respectfully request withdrawal of the objection to claim 23.

The applicants do not intend by these or any amendments to abandon subject matter of the claims as originally filed or later presented, and reserve the right to pursue such subject matter in a continuing application. The applicants request entry of the foregoing amendment, as it will either place the application for allowance or place the application in better form for appeal.

### **Patentability Remarks**

#### **Claim Rejection-35 U.S.C. §112, Second Paragraph**

In paragraphs 12 and 13 of the official action, the examiner rejected claims 16, 23, and 30 under 35 U.S.C. §112, second paragraph, for allegedly being indefinite. Specifically, the examiner asserted that claims 16 and 30 were unclear as to how a *C. glutamicum* gene can be deleted from coryneform host cells other than from *C. glutamicum* host cells. The examiner also alleged that claim 23 was unclear with regard to how a vector comprising SEQ ID NO: 1 could be both expressed and also feature an operatively linked *sigE* to a promoter.

As discussed above, claim 23 has been canceled thereby obviating the rejection to this claim. Claims 16 and 30 are now directed to the process or method according claim 9 or 24, further comprising deleting a *C. glutamicum* gene selected from the group consisting of (a) a gene which codes for phosphoenol pyruvate carboxykinase, (b) a gene which codes for glucose 6-phosphate isomerase, and (c) a gene which codes for pyruvate oxidase wherein said process occurs in a *C. glutamicum* host cell strain. The applicants submit that amended

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claims 16 and 30 are now directed to the process for the production of an L-amino acid by combining an overexpressed *C. glutamicum sigE* gene with a deleted *C. glutamicum* gene which either codes for phosphoenol pyruvate carboxykinase, glucose 6-phosphate isomerase, or pyruvate oxidase in *C. glutamicum* host cells. Accordingly, in view of the foregoing amendment and remarks, the applicants respectfully submit that the rejection of claims 16, 23, and 30 under 35 U.S.C. §112, second paragraph, has now been overcome and should be withdrawn.

**Rejection Under 35 U.S.C. §112, First Paragraph**

*Written Description*

In paragraph 15 of the official action, the examiner maintained her rejection of claim 15 under 35 U.S.C. §112, first paragraph, for allegedly lacking proper written description. Specifically, the examiner has objected to part (i) of claim 15. Part (i) of claim 15 is directed to "a gene which codes for a protein that exports lysine." The examiner alleged that the instant limitation encompasses any other gene encoding any other *C. glutamicum* lysine export protein.

Claim 15 is now directed to the process according to claim 9, further comprising overexpressing a *C. glutamicum* gene selected from the group consisting of (a) a gene which codes for dihydrodipicolinate synthase, (b) a gene which codes for glyceraldehyde 3-phosphate dehydrogenase, (c) a gene which codes for triose phosphate isomerase, (d) a gene which codes for 3-phosphoglycerate kinase, (e) a gene which codes for glucose 6-phosphate dehydrogenase, (f) a gene which codes for pyruvate carboxylase, (g) a gene which codes for malate-quinone oxidoreductase, (h) a gene which codes for aspartate kinase, (i) a lysE gene which codes for a protein that exports lysine, (j) a gene which codes for homoserine dehydrogenase, (k) a gene which codes for threonine dehydratase, (l) a gene which codes for acetohydroxy-acid synthase, and (m) a gene which codes for dihydroxy-acid dehydratase. The applicants submit that amended part (i) of claim 15 and 19 now reads "a lysE gene which codes for a protein that exports lysine." Support for amended claims 15 and 19 can be found throughout the specification, for example, on page 13, lines 10 and 11, and original claim 15.

Based upon the rejection asserted by the examiner with regard to claim 15, the applicants have also amended claim 19 in a similar manner to address any possible alleged written description issues relating to the *C. glutamicum lysE* gene. In view of the amendment to claims 15 and 19, the applicants submit that the scope of these claims encompass only the

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*C. glutamicum* gene *lysE*, which encodes for a lysine export protein, and which is well supported by the specification as discussed above. Accordingly, in view of the foregoing amendment and remarks, the applicants submit that the rejection of claim 15 [and presumptively claim 29] under 35 U.S.C. §112, first paragraph, for allegedly lacking proper written descriptive support, has been overcome and should be withdrawn.

#### *Enablement*

In paragraph 16 of the official action, the examiner maintained her rejection of claim 15 under 35 U.S.C. §112, first paragraph, for allegedly lacking enablement. Specifically, the examiner asserted that the applicants' argument were unpersuasive because the claim is drawn to any gene encoding *C. glutamicum* lysine export protein rather than a *C. glutamicum lysE* gene encoding a lysine export protein.

As discussed above, part (i) of both claims 15 and 29 has been amended to "a [*C. glutamicum*] *lysE* gene which codes for a protein that exports lysine" The applicants submit that the claims specifically refer to the *C. glutamicum lysE* gene as encoding a lysine export protein. Furthermore, as acknowledged by the examiner in the official action of March 23, 2004, the claimed process and method for using the known *C. glutamicum lysE* gene is enabled by the specification. In view of the foregoing amendment and remarks, the applicants respectfully submit that the rejection of claim 15 [and presumptively claim 29] under 35 U.S.C. §112, first paragraph, has been overcome and should be withdrawn.

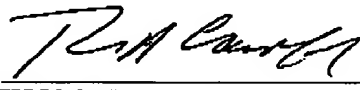
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**CONCLUSION**

In view of the foregoing, the claims are now believed to be in form for allowance, and such action is hereby solicited. If any point remains at issue which the examiner feels may be best resolved through a personal or telephone interview, the examiner is strongly urged to contact the undersigned at the number listed below.

Respectfully submitted,

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